

## What is Claimed:

1 *Sub A17* 1. Body function measuring apparatus comprising:  
2 a housing;  
3 first and second identical sensors spaced apart in said housing  
4 and adapted for contact with generally the same area of skin for developing  
5 first and second body function signals, respectively; and  
6 means responsive to said first body function signal and said  
7 second body function signal for:  
8 (a) developing an indication of the body function at the skin  
9 with which said first sensor and said second sensor are in  
10 contact, and  
11 (b) detecting a difference between the rate of change of said  
12 first body function signal and the rate of change of said second  
13 body function signal which exceeds a predetermined threshold  
14 representing a difference in the proximity of said first sensor to  
15 the skin and the proximity of said second sensor to the skin.  
1 *62.* Body function measuring apparatus according to claim 1  
2 further including means responsive to said first body function signal and said  
3 second body function signal for detecting a difference between said first body  
4 function signal and said second body function signal which exceeds a  
5 predetermined threshold representing a failure of one of said first sensor and  
6 said second sensor.  
1 *73.* Body function measuring apparatus according to claim 2  
2 further including a flexible substrate on which said first sensor and said  
3 second sensor are mounted.

1                          4. Body function measuring apparatus according to claim 3  
2    wherein said substrate has:

3 (a) first and second lands on which said first sensor and said  
4 second sensor, respectively, are mounted, and

5 (b) a neck extending between said first land and said second  
6 land and having a width narrower than the width of said first  
7 land and said second land.

1 5. Skin temperature measuring apparatus comprising:

2 P a housing;

3 first and second identical thermistors spaced apart in said  
4 housing and adapted for contact with generally the same area of skin for  
5 developing first and second temperature signals, respectively; and

means responsive to said first temperature signal and said second temperature signal for:

8 (a) developing an indication of the temperature at the skin  
9 with which said first thermistor and said second thermistor are  
10 in contact, and

11 (b) detecting a difference between the rate of change of said  
12 first temperature signal and the rate of change of said second  
13 temperature signal which exceeds a predetermined threshold  
14 representing a difference in the proximity of said first  
15 thermistor to the skin and the proximity of said second  
16 thermistor to the skin.

1 6. Skin temperature measuring apparatus according to claim  
2 ~~5~~ further including means responsive to said first temperature signal and said  
3 second temperature signal for detecting a difference between said first

4      temperature signal and said second temperature signal which exceeds a  
5      predetermined threshold representing a failure of one of said first thermistor  
6      and said second thermistor.

1      1      3. Skin temperature measuring apparatus according to claim  
2      8 further including a flexible substrate on which said first thermistor and said  
3      second thermistor are mounted.

1      3      4. Skin temperature measuring apparatus according to claim  
2      wherein said substrate has:

3                (a) first and second lands on which said first thermistor and  
4                said second thermistor, respectively, are mounted, and

5                (b) a neck extending between said first land and said second  
6                land and having a width narrower than the width of said first  
7                land and said second land.